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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,083	08/21/2006	Elias Bitar	4590-558	4164
33308 7590 02/23/2010 LOWE HAUPTMAN HAM & BERNER, LLP 1700 DIAGONAL ROAD, SUITE 300 ALEXANDRIA, VA 22314				
EXAMINER				
BROADHEAD, BRIAN J				
ART UNIT		PAPER NUMBER		
3664				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/590,083

**Applicant(s)**

BITAR ET AL.

**Examiner**

BRIAN J. BROADHEAD

**Art Unit**

3664

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1-7 are objected to because of the following informalities:
2. The claims are very difficult to read as worded. This may be because the invention is attempting to define an apparatus through method steps (as noted below).
3. Claim 6 is objected to because in line 3 it is stated "the terrain strata represented are referenced" but in claim one it is disclosed the terrain *sections* are referenced.
4. Claim 14 is objected to because it doesn't further limit claim 1. Claim 14 recites "terrain stratum levels" but it never requires these "levels" to be linked to anything in claim 1.
5. Claims 13 and 14 are objected to because they seem to contradict the specification. On page 17, paragraph 2 of the specification it is disclosed that in the absence or non-operation of a GPWS, the display adopts the same color scheme as the GPWS, but the claims seem to recite that there is a GPWS the background terrain display uses the same colors as the GPWS for some of the strata. Wouldn't this make it hard to distinguish the GPWS warnings and alerts from the background terrain?
6. Appropriate correction is required.

### ***Drawings***

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the visual alarm maps of the GPWS being superimposed on the map of the relief claimed in claim 13 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to because figure 4 does not have a label for one axis. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

9. The disclosure is objected to because of the following informalities:
10. On page 11, last paragraph, there is mention of "mesh nodes" when before they were called "mesh points". Please check the consistency of terminology throughout the application.
11. On page 12, first line, it is not clear what the "minimum local altitudes" corresponds to.
12. On page 12, third paragraph, the reference number for "the second part" should be "12", not "11".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: any structure that can actually display a map. The claims never actually recite a display or screen. Claim one simply claims a map display system that contains only a "means for extracting a map" and nothing else to actually display something. Claim 13 also recite "a relief map displayed by said device", but there is no structure claimed that can display maps.
4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 1 recites the limitation a "projection" in line 4, it is not clear what is being projected.
6. Claim 1 recited the limitation "corresponding" in line 5, it is not clear what corresponds to "terrain sections".
7. Claim 2 recites the limitation "the topographic map" in line 2. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 2 recites the limitation "the altitudes of a mesh of points" in line 2. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 2 recites the limitation "the points of the mesh" in line 5. There is insufficient antecedent basis for this limitation in the claim.
10. Claim 3 recites the limitation "the points of the mesh" in 2. There is insufficient antecedent basis for this limitation in the claim.
11. Claim 3 recites the limitation "an aircraft" in line 5. There is insufficient antecedent basis for this limitation in the claim. Is this the same as the previously mentioned aircraft that the device is in?
12. Claim 4 recites the limitation "their values" in line 2. There is insufficient antecedent basis for this limitation in the claim.
13. Claim 5 recites the limitation "said terrain sections along horizontal profiles" in line 2. There is insufficient antecedent basis for this limitation in the claim.
14. Claim 6 recites the limitation "the terrain sections along mainly horizontal elbowed profiles" in line 4. There is insufficient antecedent basis for this limitation in the claim.
15. Claim 9 recites the limitation "the map displayed" in line 2. There is insufficient antecedent basis for this limitation in the claim. The claims never actually recite displaying a map.
16. Claims 10, 11, and 12 recite the limitation "the terrain strata represented" in line 2. There is insufficient antecedent basis for this limitation in the claims.
17. Claim 13 recites the limitation "the map of the relief" in line 7. There is insufficient antecedent basis for this limitation in the claim.

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18. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

19. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

20. Claim element "means for extracting a map" is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function.

Applicant is required to:

- (a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

- (b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:



(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

21. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim recites a map that is formed from a projection on a horizontal terrain strata of a region overflown. It is never discussed how all the different terrain strata are determined. The specification concentrates solely on the upper limit and the line formed by items 23 and 24 in figure 7. How are the other "strata" determined? There appears to be some offset used from the line of 23 and 24, but the specification never explains how this offset works. There basically is a lacking of any details as to how the terrain sections are "referenced" to the safely altitude. The same problems are found in claim 4 where there is a claimed "clipping" of values but there is not disclosure of what percentage to clip and even why this is done.

***Response to Arguments***

22. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

23. The claims remain very vague and confusing especially in light of the specification. It is hoped that the rejections above clarify the concerns and questions of the examiner and aid in more clearly claiming the applicant's invention.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN J. BROADHEAD whose telephone number is (571)272-6957. The examiner can normally be reached on Monday through Thursday or Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 3664